Coordination between the monetary and public debt management policies in Croatia

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Abstract

This paper explains the main characteristics of and prerequisites for coordination between the measures and instruments of monetary and public debt management policies in Croatia and evaluates current practice, particularly over the last two recession years. Attention is drawn to the importance of coordination for achieving macroeconomic stability and to the main problems and challenges obstructing successful coordination. It is assessed that the Croatian National Bank (CNB), with its measures and instruments, has consistently contributed to improving coordination with the public debt management policy, despite the narrowing of its room for manoeuvre due to a complex economic environment and the specific functioning of the transmission mechanism of monetary policy. Notwithstanding some contribution to coordination made by the Government and Ministry of Finance, they must take measures and employ instruments to make more significant adjustments and, together with the CNB, define an optimum fiscal and monetary policy mix for the future that will ensure stable economic growth. This paper gives an overview of major CNB measures aimed at facilitating the public debt management and improving coordination with the Ministry of Finance, and presents a detailed analysis of open market operations. It also points to a certain contribution of the Ministry of Finance to the coordination improvement, indicating major barriers to effective coordination between these important policies.

Keywords: monetary policy, public debt management policy, government securities market, open market operations, Croatia

1 INTRODUCTION

The paper deals with the coordination between the monetary and public debt management policies over the last ten years, with special emphasis on the last two recession years. It analyses certain aspects of this coordination, assesses the coordination level achieved so far and offers some recommendations for its improvement.

The second part gives an account of some research works about the interdependence between the monetary, fiscal and public debt management policies, points to the importance of such coordination for macroeconomic stability, and outlines the main prerequisites for successful coordination. In this context, the compliance with these prerequisites in Croatia is assessed.

The third part highlights some problems facing the monetary policy in Croatia, but also the contribution of the latter to coordination improvement. Emphasis is placed on the specific characteristics of the transmission mechanism of monetary policy in Croatia, outlining the measures to facilitate public debt management in the country.

The fourth part analyses the public debt management policy in Croatia, with special emphasis on its goals and challenges, the contribution of the Ministry of Fi-

nance to coordination improvement and the importance of adopting a Public Debt Management Strategy (2011-13). The adoption of the Strategy should make the pubic debt management policy more transparent, but it is only through the realisation of the set goals that the coordination with the monetary policy will be significantly improved.

Part five provides an analysis of coordination over the last ten years, reports on the progress made, but also shows the encountered obstacles to improving coordination between the monetary and public debt management policies, particularly over the last two recession years.

The conclusion presents recommendations for improving coordination between the monetary and public debt management policies.

2 COORDINATION BETWEEN THE MONETARY, FISCAL AND PUBLIC DEBT MANAGEMENT POLICIES

The harmonisation between the monetary and fiscal policy objectives and instruments represents a crucial link in the formulation and realisation of any economic policy concept, because it is the harmonisation of the objectives and instruments that the efficiency of any economic policy and its realisation depend on (Jurković, 2002:197). Effective coordination requires the exchange of information between all subjects involved in decision-making.

In many countries, poor fiscal policy-making has been the main cause of numerous problems (high inflation and budget deficit, low economic growth). In order to recover, these countries need the appropriate fiscal adjustments. These difficulties are particularly pronounced in countries, which allow government financing from the central bank's primary issue. Therefore, it is desirable that the government should take out loans exclusively on the market under the same terms as all other sectors. However, excessive government borrowing from banks frequently ends up in general monetary expansion, which can only be halted by the appropriate fiscal adjustments. In the absence of such adjustments and the appropriate monetary policy measures against monetary expansion, the greatest damage will be inflicted on the private sector, by crowding it out from the credit market. Moreover, economic growth may slow down, as the final consequence of poor fiscal policy implementation.

A poorly conducted monetary policy can also obstruct the implementation of a successful and efficient fiscal policy, particularly as concerns debt management. An over-restrictive monetary policy, aimed, for example, at maintaining a certain exchange rate level, may (especially in the short run) lead to a surge in interest rates, thus increasing the public debt servicing costs and threatening fiscal stability (IMF and World Bank, 2003). Monetary policy should primarily take account of price stability. However, if this stability is not directly threatened it is not re-

commendable to take too restrictive measures, which might have adverse economic effects.

2.1 LITERATURE OVERVIEW

It is very difficult to briefly demonstrate all aspects of interdependence between monetary and fiscal policies and the debt management policy (as a key segment of fiscal policy). Therefore, only some of these aspects will be shown below.

The interdependence between monetary, fiscal and public debt management policies is best explained by the influence of budget deficit and public debt on interest rates. There are completely opposite views on this relationship in the literature: according to some of them, growing budget deficit and public debt are the main causes of macroeconomic instability, while according to others, the influence of these factors on other relevant economic variables is negligible. Evans (1985) and Barro (1997), for example, argue that budget deficit and public debt do not have any significant impact on either the nominal or real interest rates. Similarly, Boothe and Reid (1989) conclude that there is no significant positive correlation between fiscal deficit and interest rates. Barro (1997) suggests that the growth of public spending, regardless of whether it is financed through tax increases or public debt, will not affect other economic variables (aggregate demand or interest rates), because it will be offset by growing private savings[1]. Such a view that taxpayers behave completely rationally seems to be quite unrealistic and has been permanently challenged. Thus, Ford and Laxton (1995), analysing the budget deficit movements in nine OECD countries with liberalised capital markets, conclude that the public debt growth in any of these countries influences the interest rate growth in the other countries, showing that a high public debt in a country can lead to considerable negative externalities. In addition, Woodford (1996) deems that public debt growth can lead to severe macroeconomic instability that cannot even be solved by taking the appropriate monetary policy measures. Tanzi and Fanizza (1995), using data for 18 industrially advanced countries for the period 1970-1994, conclude that the public debt growth, being the consequence of fiscal deficit accumulation during that long period, spurred the increase in global interest rates by more than 1.5 percentage points. Their empirical evidence supports the theory of crowding out investments, which suggests that the growth in public debt leads to interest rate growth and consequently to a decline in total investments.

Many research works highlight the importance of the debt structure for a short-term and long-term implementation of optimal fiscal and monetary policies (Cosimano and Gapen, 2003). It was the structure of debt, and not its level, that was the main cause of financial crises and general macroeconomic instability in many transition countries (Mihaljek, 2002). What would be the desirable debt structure to guarantee the smooth economic development of a country? The answer to this question is difficult, and it largely depends on the direction and intensity of corre-

[1] This statement corresponds with the well-known Ricardian equivalence theorem.

lation between inflation, real economic growth and interest rate (Missale, 2000). Missale concludes that, in order to be in line with the monetary policy, which has as its main objective the maintenance of price stability, the optimal debt structure would be a mix of a long-term fixed interest rate debt and an inflation-indexed debt. Such a debt mix would have a favourable impact on deficit stabilisation, which Missale believes to be the main objective of debt management.

The main aspect of the debt structure is the maturity, which proved to be the key debt management parameter, both in theory and in practice. Many authors claim that, by having a large share of short-term debt instruments in total public debt, the government takes on a higher risk of interest rate shocks and debt renewal risk, which can also undermine restrictive efforts of the monetary policy (Missale, Giavazzi and Benigno, 1997). Wolswijk and de Haan (2005) argue that EU member states are increasingly oriented to the long-term fixed interest rate debt, while the shares of a short-term debt and a long-term variable interest rate debt (which entails a high risk of interest rate shocks) have decreased. Therefore, it is necessary, especially during the fiscal stabilisation process, to increase the share of long-term fixed rate debt in the domestic currency. This would increase the credibility of the entire stabilisation programme and attract more investors in government securities. However, an increase in the share of long-term debt, despite the lower renewal risk, results in higher interest expenses, so that it is vital to come to a reasonable compromise between the renewal risk and the debt servicing costs.

Debt structure can be analysed according to both the creditor's residence and the currency in which the government is obliged to repay the debt. Excessive reliance on foreign borrowing increases the sensitivity of a country to abrupt changes in market conditions and to "mood swings" of foreign investors[2]. However, the creditor's residence has lately become less relevant, because, due to the overall market liberalisation and globalisation, greater importance has been attached to the characteristics of debt instruments and debt distribution channels (Wolswijk and de Haan, 2005). The share of external debt in total public debt should not be too large, in order to prevent the adverse effects of this public share of foreign debt on the country's external indebtedness.

The general stability also depends on the debt structure according to the forms (instruments) of public debt. In some countries, e.g. Brazil, instability was mainly caused by bad debt structure according to the types of debt instruments. Excessive reliance on instruments with variable interest rates and on inflation-indexed or exchange rate-indexed instruments may considerably increase the exchange rate and interest rate risks (Mihaljek, 2002). Some authors believe the economies with larger shares of nominal debt to be much sounder than those with larger shares of indexed debt, as the nominal debt protects the state budget from unexpected

[2] In 2001, foreign investors accounted for about 60% of public debt in Argentina, which was one of the main causes of the country's vulnerability (Wall Street Journal Europe, 2002).

shocks by providing a non-distortive source or revenue and ensuring an easier and more efficient fiscal and monetary policy implementation (Cosimano and Gapen, 2003). On the other hand, careful debt maturity planning and debt instrument indexing may have a beneficial effect on the credibility of an anti-inflationary monetary policy and, consequently, on attracting investors and increasing their investments in such instruments. The key advantage of inflation-indexed bonds consists in the fact that they are normally issued at a lower interest rate, which does not incorporate inflationary expectations (Wolswijk and de Haan, 2005).

Blanchard and Favero (2004) argue that a huge public debt, increasing the country's credit risk, can cause serious imbalance, due to which a restrictive monetary policy can produce unusual effects. More specifically, in countries with large and mainly short-term public debt, the growth of interest rates aimed at curbing inflation, increases the debt servicing costs and, consequently, the level of debt. This then leads to an increase in credit risk, higher capital outflows and, possibly, exchange rate depreciation. Additionally, if most of the debt is denominated in or pegged to a foreign currency, the exchange rate depreciation can lead to further debt growth.

Accordingly, most of the above-mentioned studies point to the connection and interdependence between monetary, fiscal and public debt management policies, and a need for their coordination, with the final purpose of achieving macroeconomic stability.

2.2 COORDINATION AND MACROECONOMIC STABILITY

The importance of coordination is illustrated by the following table:

Table 1

Budget constraints and policy coordination

Fiscal policy		Debt management		Monetary policy	
D_t	=	$(B_t - B_{t-1})$	+	$(M_t - M_{t-1})$	(1)

Source: Sundararajan, Dattels and Blommestein (1997).

Table 1 shows the necessity of coordination, due to the interconnection between the key components of fiscal policy (the size of the budget deficit), debt management (public debt issue) and monetary policy (the money supply growth rate). According to expression (1), budget deficit in a current period must be financed by taking out loans or through net the sales of bonds (B_t-B_{t-1}) to banks, companies and individuals, or by the central bank's credit to the government, which in turn results in the growth of money supply (M_t-M_{t-1}). This equation is as simplification of reality, as in most countries money supply is not created exclusively through the central bank's credit to the government (in Croatia, this mode of creating M1 is not used at all). However, this model provides a basis for understanding the interdependence between these crucial policies.

Debt management is a process of assessing and analysing the amount and structure of debt, with a view to reducing the underlying risks, given their direct influence on the state budget, financial system and capital market and, consequently, on fiscal and macroeconomic stability (Ministry of Finance, 2011). Hence, the fiscal and public debt management policies strongly affect monetary policy, which is why all these policies have to be coordinated in order to ensure macroeconomic stability.

Croatia's deficit and public debt have been on the increase in recent years, and the government has increasingly borrowed on both domestic and foreign markets, which necessarily reflected on the financial system liquidity. The CNB has responded to this on several occasions (e.g. by reducing the reserve requirement rate), in order to prevent the crowding out of other sectors. However, the crowding out of other sectors is not only the consequence of temporary liquidity shortages, but also of the growth in bad corporate and household loans. The share of bad loans in banks' portfolios went up from 5% in 2008 to 10% at end-2010, which made the banks more prone to extend loans to the government as the most reliable debtor. Borrowing on international markets (by both government and private sectors) affects the monetary situation in the country, because it results in large foreign currency inflows and strong appreciation pressures on the domestic currency. Then the CNB must intervene on the foreign exchange market and purchase large amounts of foreign currency, which accelerated the growth of reserve money (M0), especially during 2006 and 2007. The CNB has repeatedly warned of the huge external debt growth, so that the government reduced the foreign component of public debt from about 45% in early 2006 to about 30% in late 2008, while the private sector continued to borrow heavily from abroad. A decline in the government's external borrowing led to a fall in overall public debt, but only until mid-2008, when public debt rocketed again.

Due to a sharp increase in money supply (M1) during 2006 and 2007, coupled with the growth of energy and food prices, inflation reached 6% in 2008. In order to stop that growth, the CNB had to tighten its monetary policy, but this was not enough to stop the bank credit activity. From the end of 2008, the CNB rejected more and more offers at reverse repo auctions, until they were finally stopped at the end of 2009, to be continued as soon as any substantial economic recovery is observed and the CNB assesses that additional liquidity can be regularly injected into the system, without the risk of escalating inflation.

Due to a sharp decline in economic activity and, consequently, in the national budget revenue, budget deficit increased, forcing the government to take out increasingly large loans. Given the excessive level of external debt, the government borrowed on the domestic market, which, due to a relatively strict monetary policy, causing a fall in M1, led to interest rate fluctuations. This additionally aggravated the financial environment for both the government and other sectors. Therefore, in

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order to facilitate the government's borrowing on the crisis-stricken domestic financial market and stabilise interest rates[3], the CNB reduced the reserve requirement rate on two occasions (in 2008 and 2010), from 17% to 13%, releasing liquidity worth over 11 billion kuna in total, and facilitating the government's borrowing without the crowding out of other sectors.

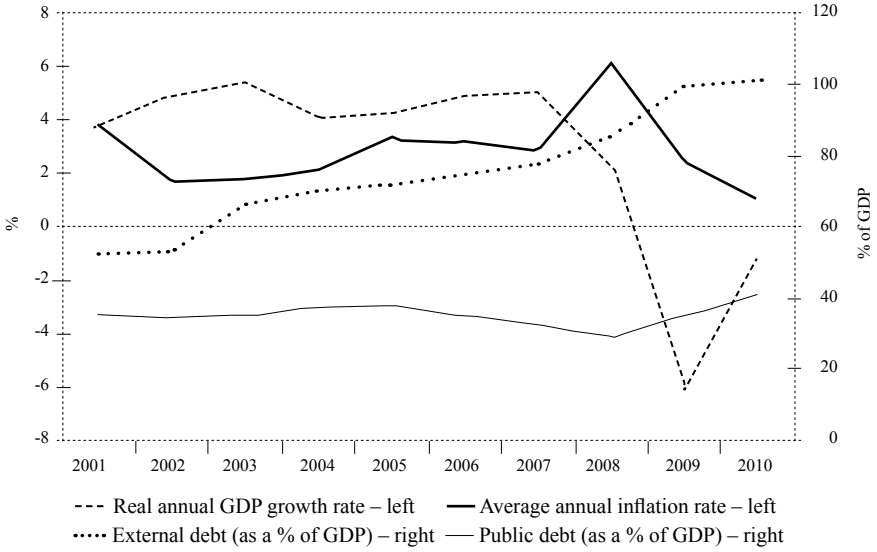
By combining foreign exchange interventions (the purchase and sale of foreign currency) and the reserve requirement rate cuts, the CNB tried to ensure the money supply (M1), necessary to provide sufficient liquidity, while maintaining price stability. Thanks to the measures taken, M1 moved within the range between 47 billion kuna and 49 billion kuna from February 2009 to the end of 2010. These movements seem logical, given the economic activity weakening (GDP dropped by 6% in 2009 and by 1.2% in 2010), and it will not change until fiscal consolidation is achieved and signs of a significant economic recovery are observed. The key problem lies in the fact that the government, and not the economy, absorbed a large portion of liquidity released during the last two years, and spent it on the debt repayment and current consumption. Neither the private sector has made any significant use of credit facilities offered by the CBRD, so that the bulk of the earmarked funds remained unused. All this has narrowed the room for manoeuvre of the monetary policy, which has often been criticised for not having provided enough incentive to economic growth. However, it obviously had little room to do so without jeopardising its main function, which is to maintain price stability. Perhaps some monetary policy measures might have been more successful, had they been taken earlier (e.g. reducing the reserve requirement rate as early as the beginning or middle of 2008, when the first signs emerged of the financial crisis). However, one cannot be sure about that, because as inflation has soared ever since the end of 2007, taking this measure earlier would perhaps have led to its further escalation.

Given the complexity of the economic situation in recent years, the monetary, fiscal and public debt management policy measures should have been coordinated on an almost daily basis. The strongest contribution by the fiscal and public debt management policies to long-term macroeconomic stability and coordination with the monetary policy would be to reduce government spending, to the state budget balance and gradually harmonize the public debt growth rates with GDP growth rates. Then the public debt management policy could be more effectively harmonized with the monetary policy, and government borrowing would be planned, rather than uncontrolled, and would be undertaken in periods of lower interest rates and higher liquidity. In such a way, the economy would be protected against liquidity shortages and interest rate fluctuations caused by increased government participation in the credit market.

[3] In February 2009, overnight interbank interest rate on loans stood at 18.97%, and it has not exceeded 6.58% since April that year, which shows that this measure produced positive results.

FIGURE 1

*Basic macroeconomic indicators, Croatia, 2001-10**



**Public debt does not include government guarantees. As of 2008, the debt of the Croatian Motorway Company (HAC) has been excluded from the general government debt. Including these components, public debt climbs to almost 60% of GDP.*

Sources: CNB and Ministry of Finance.

As shown by figure 1, the indicators remained stable in the period 2005-07, as these two politics contributed more substantially to coordination improvement. However, since 2008 (and some of them even since end-2007), the indicators have moved in a negative direction, which was due to both the global economic crisis and poor coordination between the fiscal, monetary and public debt management policies. The strongest inflation growth coincided with the public debt acceleration (reflecting the interdependence between the monetary and public debt management policies), and these two parameters were recently strongly influenced by the government, which failed to implement radical reforms and austerity measures, thus making the largest possible contribution to coordination.

It would be too simple to think that closer coordination between the monetary, fiscal and public debt management policies would immediately turn all these indicators in a positive direction, but the situation would certainly improve if the policy instruments and measures were harmonised.

Despite signs of economic recovery, observed during 2010 as a result of both the CNB's policy of high domestic banking system liquidity aimed at stimulating banks' credit activity, and some business projects launched by the Government, a major economic recovery and long-term macroeconomic stability are difficult to achieve without more substantial fiscal consolidation, which would strengthen the positions of both monetary and public debt management policies.

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2.3 PREREQUISITES FOR GOOD COORDINATION

The main prerequisites for good coordination are the following: (1) a well-developed government securities market; (2) central bank independence; and (3) transparency of public debt management.

The efficiency of coordination in any country depends on the possibility to meet these prerequisites. The following analysis briefly explains the importance of each of them and evaluates compliance with these prerequisites in Croatia.

A well-developed government securities market facilitates the achievement of the objectives of monetary and public debt management policies, by increasing the transparency and predictability of the public debt management policy, and consequently, facilitating the monetary policy implementation. The multiple correlation between the government securities market and the achievement of the objectives of monetary and public debt management policies is as follows:

- Persons in charge of debt management, acting as government's fund-raising agents, are interested in good operation and efficiency of the government securities market, with the aim of minimising debt servicing costs.
- As the monetary policy authority, the central bank promotes efficient determination of interest rates as one of the key components of the transmission mechanism of monetary policy. As the central bank often intervenes on the government securities market, the good functioning of that market is important for achieving monetary policy objectives.
- Monetary, fiscal and other regulatory authorities are jointly interested in the development of an efficient government securities market, with the aim of maintaining macroeconomic stability (Dattels, 1995).

The development of an efficient government securities market is in the interest of both private and public sectors, and such market is considered as public good to be used by all taxpayers, because it ensures lower debt servicing costs. It is also useful to the financial sector as a whole, as it promotes safe and efficient saving and investment.

In underdeveloped economies, there is a need for concrete solutions for coordination and a formally prescribed obligation to exchange information between fiscal and monetary authorities. Given the underdevelopment of Croatia's government securities market, formal regulations on coordination are still needed. Implicit coordination exists in countries with advanced financial markets and is carried out through the government securities markets. In such countries, formal coordination regulations are unnecessary, because coordination is a spontaneous process, taking place within the operations on the government securities market.

Croatia's financial structure is still inadequate, with the predominant role of banks and an underdeveloped secondary market that cannot ensure substantial liquidity

of financial instruments. However, thanks to the launching of open-market operations in mid-2005, the government securities market saw a revival and liquidity improved. A well-developed government securities market is based on an adequate market structure. However, market structures have changed increasingly over the last decade, so, instead of the auction-agency markets, dealer markets are more common in practice. This should be the right path for Croatia as well, because, according to the experience of many comparable countries[4], the primary dealer system stimulates the development of government securities markets and enables considerable savings in public debt management.

The first prerequisite for good coordination has not yet been met, and there is still need for formal coordination regulations and a joint action between the CNB and Ministry of Finance towards further development of the government securities market.

Central bank independence. The primary objective of the monetary policy in most countries, including Croatia, is to maintain price stability as a basis for achieving economic growth, increasing employment and improving the living standards of citizens[5]. The strongest incentive to separate the debt management policy from the monetary policy is provided in the Maastricht Treaty, which prohibits government borrowing from the central bank. Nevertheless, central banks and their monetary policies are still facing political pressures, and the ECB itself has frequently been a target of criticism from the EU member state governments for its interest rate policy and the strong euro[6].

Although the above discussion may suggest that the requirement for central bank independence has no connection whatsoever with the public debt management policy and the need to coordinate with that policy, the situation is different. The need for independence never excludes the possibility for a central bank to perform functions related to public debt management. On the contrary, the functions of central banks in developed countries do include a certain responsibility for public debt management. Of course, this responsibility must not be contrary to a central bank's main objective, which is the maintenance of price stability. The responsibility includes, at the minimum:

– *an advisory function* – the central bank informs the finance ministry on the banking system liquidity, and movements in interest rates and monetary and credit aggregates. This information is critical for taking decisions on the manner of deficit financing and for achieving the monetary policy objectives;
– *an issuing agency function* – in many countries, central banks hold government securities auctions, organize the open-market operations, involving go-

[4] For example, Slovenia and Czech Republic have implemented the primary dealer model for many years now and they consider it as "extremely beneficial" for the development of government securities markets.
[5] This monetary policy objective is mentioned in chapter 2, article 105 of the Maastricht Treaty.
[6] For more details, see Brione (2005).

vernment securities used as collateral, and operate the settlement and payment systems;
– *a fiscal agency function* – the central bank makes payments and collections on behalf of the state, thus acting as state treasurer[7].

The CNB can also perform these functions and they do not affect its independence. Occasional attempts to compromise this independence do exist, but they should not be taken too seriously as they happen in many other, more advanced economies as well. The CNB's independent monetary policy relies on a sound legal framework, but this independence does not mean that the bank is isolated or self-sufficient, because it can only accomplish its goals in cooperation with others.

Only independent institutions can achieve good coordination, without threatening their core functions. The Act on the CNB clearly regulates the cooperation with the fiscal policy regarding domestic and foreign borrowing, but it does not regulate the manner of financing this borrowing, so that occasional pressures in this direction are without merit. Hence, it can be freely said that the "central bank independence" prerequisite is fully met in Croatia.

Transparency of public debt management. The transparency of and clear rules for the operations of the central bank and finance ministry are very helpful in resolving conflicts between monetary and public debt management policies, reducing the risk for investors and their transaction costs and, in the long run, they help the government bring down the debt servicing costs (IMF and World Bank, 2003).

The public debt management objectives should be clear and publicly known, with all methods of risk and cost measurement being fully explained. It is very important that the public should have permanent access to all the information on budget activities, including the manner of their financing. The Government should regularly disclose information on the currency and interest rate structures of debt and financial assets, as well as on their maturity structures. It is also crucial that information is provided on all government contingent liabilities and on the tax treatment of government bonds when they are first issued.

Until the beginning of 2011, the transparency of public debt management in Croatia was rather poor, due to a lack of any comprehensive public debt management strategy. However, a Public Debt Management Strategy for the following three years was adopted in 2006, including a Government Securities Issuance Calendar for 2007, but most of the goals from the Strategy have never been realised. Furthermore, the Strategy offered no appropriate models for risk management, which were crucial for reducing the debt management costs. Here we can draw on the example of Ireland, whose strategy includes efficient risk management, so that the Irish Risk Management Agency monitors interest rate movements on the financial

[7] For more details, see Blommestein and Thunholm (1997).

markets and takes out loans only when interest rates are favourable. It often refinances the debt issued at higher interest rate by borrowing at a lower rate[8]. One of the major goals of the 2006 Strategy was to introduce a primary dealer system, but this never came true.

In February 2011, the Government adopted a Public Debt Management Strategy for the period 2011-13, which was a major step towards a more transparent fiscal policy. Especially commendable is the following:

– publishing of a T-bill auction calendar, showing the Government's commitment to strictly control and plan the short-term debt movements;
– extension of the average debt maturity and reduction of the share of short-term debt from 16.1% to 12-14%;
– introduction of a currency risk hedging mechanism, converting a portion of the government debt in dollars (about 13% of total debt) into the debt in euro, in order to mitigate the risk of major fluctuations in the dollar exchange rate; and
– orientation towards the continued development and improvement of the domestic government securities market.

However, it is not clear why the Strategy ignores the issue of introducing the primary dealer system, and why the introduction of government bond issue auctions has been given up. Will the goals set in the Strategy be realised and at what pace? Will the public be adequately informed? Unfortunately, the answers to these questions have not been presented to the public so far, but it remains to be hoped that this will become practice in the future.

The transparency of Croatia's public debt management has increased, but there is still the problem of late delivery of data to the Croatian National Bank on all planned transactions related to domestic and external borrowing of the Ministry of Finance.

3 THE INFLUENCE OF MONETARY POLICY ON COORDINATION

As in most European countries, the main objective of monetary policy in Croatia is to maintain price stability. This should be particularly emphasized, because monetary policy has often been perceived by the public as having a crucial role in the promotion of exports, production and employment growth and, consequently, the growth of economy in general. The monetary policy indirectly affects all these variables, but the influence of other economic policymakers is even stronger, primarily that of the Government. However, monetary policy can support the Government in pursuing these goals, as long as the main objective of economic policy is not threatened.

[8] Thanks to such management, the realised debt servicing costs in 2004 were lower by 350 million euro than the amount planned for this purpose (http://www.ntma.ie/Publications/2005/Annual_Report_2005.pdf).

There are many monetary policy instruments for regulating banks' credit activity and liquidity, as well as the quantity of money supply, with a view to maintaining price and exchange rate stability (which is of the utmost importance in such a highly eurized financial system). This article only deals with the most frequently used instruments, i.e. foreign exchange interventions (purchase and sale of foreign currency), open market operations (OMO) and reserve requirement. Foreign exchange interventions have been particularly important over the last ten years, which saw strong appreciation pressures on the domestic currency due to the huge external debt. A restrictive measure of increasing the marginal reserve requirement rate from 40% to 55% was introduced as late as end-2005, with a view to offsetting (to at least some extent) the negative effects of a boost in external debt. From end-2005 to the beginning of 2008, the CNB intervened 17 times on the foreign exchange market, purchasing about 2 billion euro. As a result, the amount of about 15 billion kuna was injected into the financial system, and money supply rose by almost 40%. Due to a sharp increase in monetary aggregates during 2006 and 2007, and the ever- growing energy and food prices, inflation reached 6% in mid-2008. In order to restrain that growth, the CNB had to tighten its monetary policy measures, but not enough to stop the credit activity of banks (credit growth decreased only slightly, from 15% in 2007 to 11% in 2008). Inflationary pressures during 2008 led to increasingly strong demand for foreign currency and, consequently, to the depreciation of the kuna. In response to this, the CNB intervened three times from 2008 to 2009, by selling foreign currency, which resulted in an outflow from the financial system worth almost 6 billion kuna (in only 4 months, money supply fell from about 53 billion kuna to about 47 billion kuna), and a decline in inflation rate to below 3%.

The cessation of regular OMO, introduced for the purpose of improving the liquidity of the system, can also be considered as a restrictive measure. The last reverse repo auction was held in October 2009, when it was assessed that, given the economic downturn, there was enough liquidity in the system and that the auctions would be continued as soon as there were signs of any significant economic recovery.

The reserve requirement is an administrative and direct monetary policy instrument used for efficient regulation of the money supply, which is less and less often used on developed financial markets. Therefore, the CNB's long-term goal is to gradually decrease the reserve requirement rate, which declined from 20% to 13% over the last ten years, resulting in a marked improvement in the financial system liquidity.

3.1 TRANSMISSION MECHANISM OF MONETARY POLICY

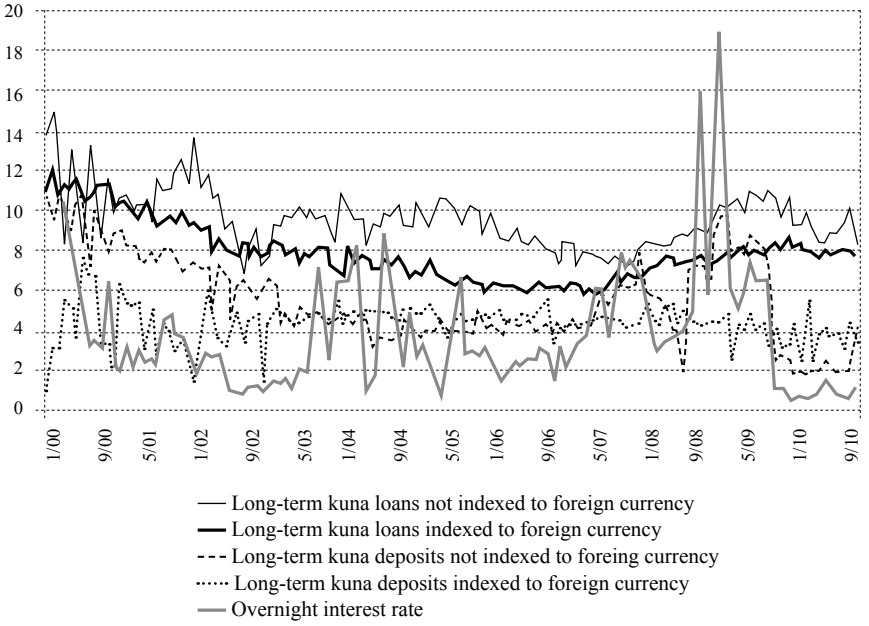
The transmission mechanism of monetary policy is the impact of monetary policy on real movements in, e.g. investments, national income and prices. The mechanism works through a number of transmission channels (interest rates, exchange rate, credit), which have different significance across countries, depending on the specificities of each financial system. The functioning of this mechanism is specific

in Croatia, as well, and it is exactly these specificities that reduce the effects of some monetary policy measures.

Žigman and Lovrinčević (2005) conclude that an underdeveloped financial market and a high level of eurisation[9] represent the major barriers to an objective analysis of the functioning of individual transmission channels, which strongly impedes conducting an independent monetary policy. They also hamper coordination with the fiscal and public debt management policies, because the CNB's measures do not always have desirable effects. For example, by applying its measures, the CNB deeply influences movements in interest rates on the money market, but its influence on interest rates on bank deposits and loans is much weaker, because these rates depend on external inflows of funds from foreign owners of domestic banks. Therefore, the CNB is exclusively focused on controlling the amount of money, as the possibility to control its price (interest rate) is much smaller. A more perceptible strengthening of the interest rate channel can only be expected once Croatia joins the European Monetary Union.

Figure 2

Selected interest rates, 2000-10 (%)



Source: CNB.

[9] The level of eurisation of the Croatia's financial market is 80% (measured by the share of foreign currency savings in total savings). The reasons for such high foreign currency participation are mainly historical and are very complex. During the last ten years, the CNB took a series of measures to reduce the level of eurisation to about 65%, but, as the global crisis arose, this positive trend reversed and the ratio returned to the level of 80%.

As shown by figure 2, the CNB's influence on the movements in overnight interest rates on the interbank market has only partly spilled over to interest rates on deposits and loans, i.e. only to interest on long-term kuna deposits not indexed to foreign currency, while there has been almost no spillover to other specified interest rates. This partial spillover has been observed only since the end of 2005, when open-market operations[10] were introduced. Hence, the introduction of OMO had some positive effects on the strengthening of the interest rate channel.

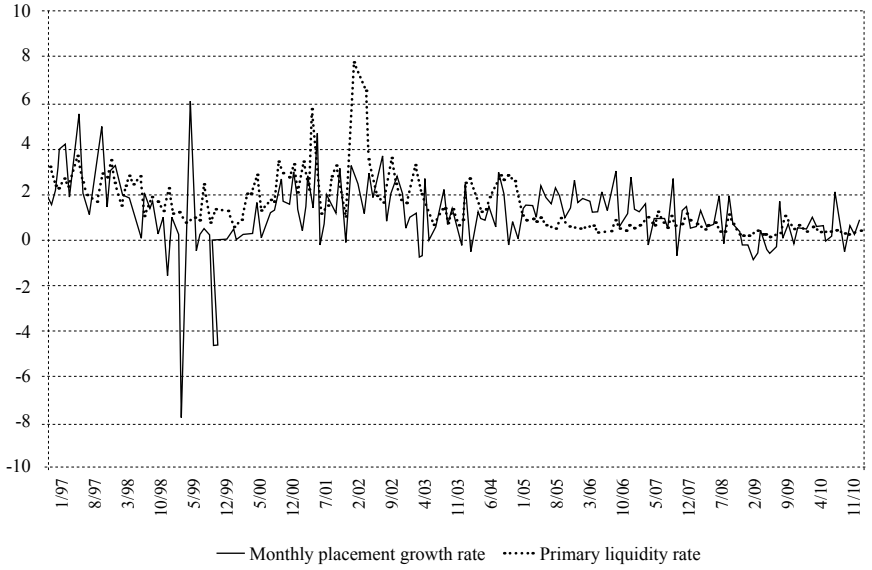
The Croatian Banking Association's analysis (2009) also points to a key problem of Croatia' monetary policy, i.e. that its measures cannot simultaneously influence interest rates on both money and credit markets, as is the case, for example, in the USA, because transmission mechanisms have different effects in different countries. In small and open economies, such as Croatia, an increase in interest rates aimed at curbing inflation may cause excessive foreign capital inflows, domestic currency appreciation, growth in demand and inflation, which means that one and the same measure can have opposite effects in different countries. Accordingly, the tightening of monetary policy and increasing interest rates in a small open economy can cause a situation contrary to what is desired (i.e. expansion instead of contraction). The poor functioning of the interest rate channel is largely due to the foreign ownership of banks, which are able to offset the restrictive monetary policy by borrowing from the parent banks, which is why the credit expansion continued even after the outbreak of the global crisis.

The credit channel helps forecast the movements of loans during the financial crisis, because their permanent availability is crucial for instigating economic activity. It is based on the assumption that a restrictive (or an expansive) monetary policy may reduce (or increase) credit supply, which then affects the real sector. Banks always try to neutralise the restrictive monetary policy effects, which they often succeed in doing in Croatia, because foreign-owned banks have their parent banks as additional sources of finance, so that the effects of the CNB's monetary policy instruments on them are limited. Nevertheless, this incomplete functioning of the credit channel cushioned the adverse spillover effects of the global crisis on Croatia, as corroborated by data on the credit growth dynamics (which did not slow down in the early phase of the crisis). However, it is questionable how long this credit growth would be sustainable and when it would result in an escalation of inflation. Lang and Krznar (2004) find that the impact of the monetary policy on banks' credit activity is less severe if the banks are foreign-owned, because, instead of reducing credit supply to the same extent as domestic banks do, they apply to their parent banks abroad for additional sources of finance.

[10] The CNB has introduced this indirect monetary policy instrument with the purpose of mitigating strong fluctuations in interest rates on the interbank market (prior to the introduction of OMO, this rate sometimes reached a high of 30%). It also facilitated public debt management, thus improving coordination between monetary and public debt management policies.

FIGURE 3

Primary liquidity rate and monthly growth rate of bank placemants, 1997-2011 (%)



Source: CNB.

Figure 3 shows that the classic credit channel does not work in Croatia. If it worked, there would be a strong correlation between the movements of the banking system's primary liquidity rate and the placement growth rate. On the contrary, this correlation is very low. The primary liquidity rate has been stable since 2005, which can be associated with the introduction of open market operations, originally aimed at improving the system liquidity. By contrast, the fluctuations in placement growth rate have been much stronger. This suggests that the monetary policy effect on its movements is minor compared with that of capital inflows from abroad, which were heavily used by domestic banks in foreign ownership whenever the demand for loans exceeded the available domestic liquidity. As the crisis grew worse and economic activity slowed down, the credit growth rate fluctuations intensified and placements even declined at some stages of the crisis. Despite the crisis outbreak, credit growth even accelerated in the second half of 2008, but, regrettably, this was mostly due to an increase in government borrowing aimed at redressing the budget imbalance,

Such situations of a minor monetary policy influence on credit growth are quite common in developing economies and are fully in line with the research works arguing that there is no interest rate spillover from the money market to the deposit and credit markets (Cavausoglu, 2002). Banks can conduct their credit policies independently of their monetary policies, as they can isolate interest rates for most of their credit and deposit facilities from the influence of money market interest rates. It is easy for banks to find substitutes for domestic sources of funds, and the

central bank has no direct influence on these substitutes, primarily the capital and foreign liabilities of banks (CBA's analyses, 2009).

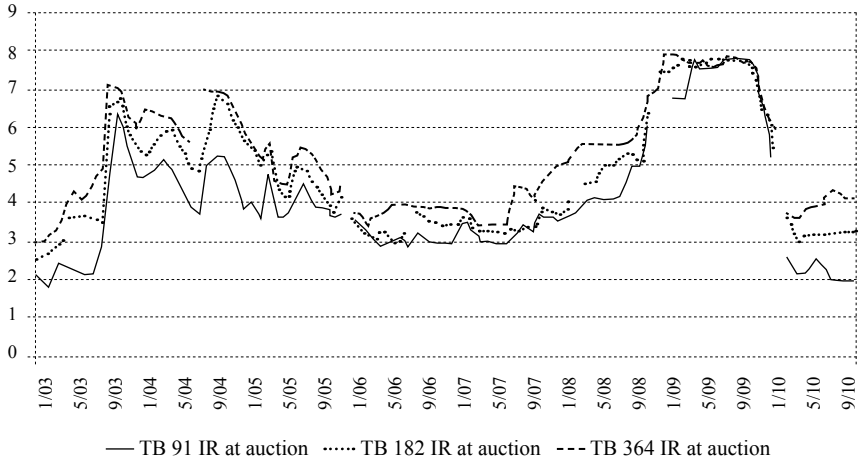
In a small and open economy such as Croatia, there are no monetary policy instruments to either stimulate or curb credit expansion that can threaten the stability of prices. However, in the last few years, this expansion was strongly spurred by the government, in an endeavour to cover the increasingly large budget deficit. Consequently, in order to improve coordination with the monetary policy, the government must implement measures to balance the state budget and stop further growth of public debt.

3.2 CROATIAN NATIONAL BANK AND PUBLIC DEBT MANAGEMENT

Given its institutional and operational independence, the central bank may not introduce measures directly aimed at cutting the public debt management costs. However, this independence does not prevent it from taking steps towards indirectly facilitating public debt management. Accordingly, in April 2005, the CNB introduced OMO, which, despite being intended for monetary policy promotion, was able to significantly improve public debt management. Specifically, by introducing OMO, the Ministry of Finance's borrowing on the domestic financial market became easier, while bank demand for T-bills increased (CNB, 2006). While even the announcement by the CNB about introducing OMO was perceived by some analysts as taking over the debt management function, the main purpose of the OMO is to moderate the interest rate fluctuations on the money market. From 1994 to 2011, interest rates on overnight loans fluctuated between 1% and 30%, which made it impossible to determine benchmark rates on short-term and long-term sources of funds, which are crucial to the development and deepening of financial markets.

FIGURE 4

Yield on T-bills, 2003-10 (%)*



** Average monthly rate.*

Source: CNB.

As shown by figure 4, until the introduction of OMO in mid-2005, interest rates on T-bills fluctuated considerably, but after that, they remained rather stable until mid-2008. Due to the crisis, liquidity on the Croatian financial market decreased, and interest rates on T-bills went up from mid-2008 to the second half of 2009. In early 2003, the government borrowed on the money market by selling T-bills at an interest rate of about 2.5%. However, as early as end-2003, this rate jumped to a high of 7%, which inevitably led to an increase in overall public debt management costs. The launching of OMO was accompanied by a boost in demand for T-bills, while fluctuations in interest rates on T-bills moderated and gradually stabilized at a level of about 3.85%, which resulted in a decrease in debt servicing costs[11]. Regrettably, at the first sign of the crisis in mid-2008, interest rates on T-bills started to grow and reached almost 8% in December. During 2009, they ranged between 5.3% and 7.95%, while in 2010, these rates fell and stabilised again, thanks to the monetary policy measures implemented by the CNB.

The OMO provided a basis for more intensive government borrowing on the domestic market at increasingly favourable terms. However, the CNB had to make sure that the monetary aggregate growth does not result in exchange rate destabilisation, inflation growth and crowding other sectors out of the credit market. Therefore it is obvious that indirect monetisation of a portion of fiscal deficit through the OMO does not impair the government's obligation to significantly reduce its deficit, as this is the only way to provide more room for OMO. Had the government done more to reduce the budget deficit in recent years, the CNB would have probably taken the decision on introducing OMO earlier (Rohatinski, 2004).

The development of OMO will further result in the gradual accumulation of a certain amount of government securities (only T-bills for now, but also bonds in the future, because in structural operations, which have not been carried out so far, bonds will also be accepted as collateral) in the CNB portfolio, and the central bank will actively manage them. All this will speed up the development of the government securities market.

The introduction of OMO is beneficial for the overall economy, and a sign that Croatia is getting closer to the EU, as these operations have been in use in most member states for many years. The most important thing to remember is that OMO is exclusively a monetary policy instrument and not a public debt management instrument, so that the management of government securities in the CNB's portfolio will exclusively be motivated by monetary reasons. By introducing OMO, the CNB has not assumed any significant role in public debt management, which remains to be the basic function and full responsibility of the Ministry of Finance, but it has laid the basis for more effective future coordination.

[11] On 14 June 2005, interest rate on T-bills with a maturity of 365 days was 5.25%, but it fell to a low of 3.85% on 5 September 2006.

Over the last seven years, the CNB took the following additional measures to facilitate public debt management, without threatening its main goal, i.e. the maintenance of price stability:

1) October 2004: The reserve requirement rate was reduced from 19% to 18%, releasing about 1.8 billion kuna of liquidity. This facilitated the realisation of government bond issues, by which the Ministry of Finance substituted a portion of the growing external debt by domestic borrowing. The government used the kuna funds received from the CNB for the purchase of foreign currency intended for the repayment of Samurai bonds falling due at end-2004. Through this purchase, the effect of the bond issue on domestic monetary movements was neutralised.
2) February 2005: The minimum coverage of foreign exchange liabilities by foreign exchange claims was reduced from 35% to 32%, releasing about 4 billion kuna of liquidity, which was enough for banks to cover government liabilities without crowding out other economic sectors.
3) December 2005: The reserve requirement rate was again reduced from 18% to 17%, releasing about 2.1 billion kuna of liquidity for the realisation of the Ministry of Finance's bond issues in December 2005 and February 2006.
4) November 2008: The reserve requirement rate was again reduced from 17% to 14%, releasing about 8.4 billion kuna of liquidity. This facilitated the financing of government borrowing on the domestic market, without crowding out economic agents.
5) March 2009: The CNB adopted a decision on extending eligible collateral to include euro-denominated T-bills, which started to be issued in larger quantities as the crisis broke out. This was another step forward in coordinating the monetary and public debt management policies.
6) February 2010: The reserve requirement rate was reduced from 14% to 13%, releasing additional liquidity worth about 2.9 billion kuna. These funds were to be channelled to business subjects through the CBRD, according to the criteria set by the Government. It was emphasized that the CNB was ready to further reduce the reserve requirement rate, but only if the funds released were used for speeding up economic recovery.

All these measures are fully in line with the practice in advanced economies and with the long-term CNB policy, aimed at gradually reducing the reserve requirement rate. In addition to this, even in the years of the greatest external debt expansion, from 22 billion euro to 39 billion euro (between 2004 and 2008), the CNB was taking measures to support the Government in its efforts to finance the budget deficit without new external borrowing. Nevertheless, the measures failed to achieve the desired results and, despite the CNB's announcements of a further reduction in the reserve requirement rate, this has not yet been done, because most of the goals proclaimed in the Economic Recovery Programme remained unrealised.

It can be concluded that the CNB measures implemented so far to facilitate public debt management and to substitute the fast-growing external debt by domestic borrowing produced only halfway results. However, this was expected, given the absence of coordination with other economic-policy agents.

4 THE INFLUENCE OF THE PUBLIC DEBT MANAGEMENT POLICY ON COORDINATION

4.1 THE GOALS AND CHALLENGES OF PUBLIC DEBT MANAGEMENT

The main purpose of public borrowing and public debt management is to ensure state budget financing at the lowest medium-term and long-term costs and at an acceptable level of risk. An additional purpose is to develop the domestic government securities market, because a well-developed market is a key prerequisite for efficient debt management. It also enables the debt portfolio diversification and reduces dependence on foreign sources of finance.

A great challenge facing the public debt management policy in Croatia is that its room for manoeuvre is very limited, preventing it from taking account of costs and risks of borrowing, because it is completely determined by the overall fiscal policy problems and growing deficit. When fiscal deficit is high, showing a further upward trend, it is impossible to postpone borrowing until the time when interest rates on domestic and world markets are low, because the government must take out loans as soon as possible and under any conditions offered. Thus, the government's borrowing on the foreign market in March 2011, worth 1.5 billion USD for a period of 10 years and at a rate of 6.375%, was necessary to cover the growing deficit, which exceeded 5 billion kuna as early as the first three months of 2011. Although this interest rate is lower than the rate on a number of previous government bond issues (6.5% and 6.75%), it is still too high, so that the cost of this loan, earmarked for the repayment of a portion of "old", and settlement of the current government liabilities, will finally reach about 2.5 billion USD (only the interest stands at about 970 million USD). Accordingly, the government itself would make the largest contribution to improving the quality of public debt management, by making sizeable cuts in its own spending and, consequently, in public deficit, which would improve the country's credit rating in the long run and ensure more favourable borrowing conditions in the future.

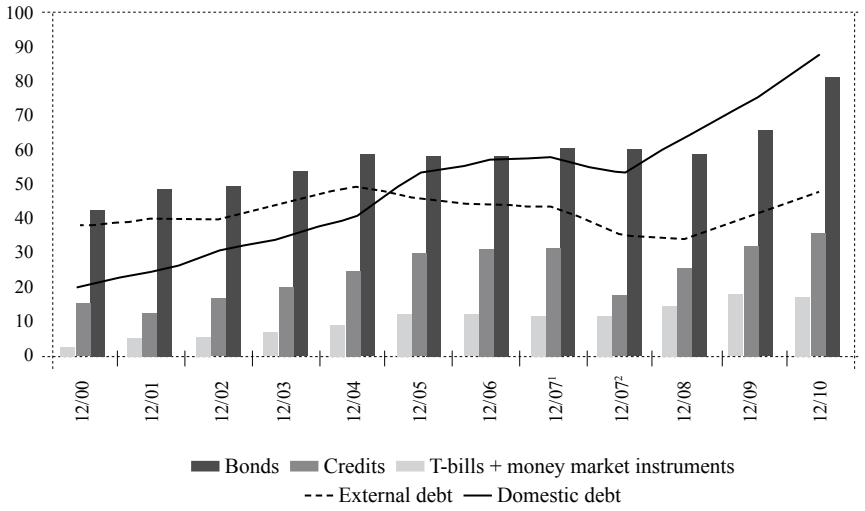
Croatia's debt structure is as follows: the share of foreign currencies in total debt is about 70% (euro debt accounts for 57.5%) and it should not be further increased, because any stronger domestic currency depreciation would lead to sizeable growth in repayment costs. A good thing is that about 70% of the CNB reserves are in euro, because this ensures regular debt servicing even in the cases of sudden external shocks. The share of the fixed-interest-rate debt increased from 79.7% in 2005 to 81.4% in 2010, and it can be said that the interest rate structure of Croatia's debt is optimal. The last few years saw a decline in the share of the long-term debt (primarily bonds, from 66.7% in 2005 to 61.7% in 2010), while the short-

term debt share increased (primarily T-bills, from 12.2% in 2005 to 16.1% in 2010). As this enhances the risk of debt renewal, it would be good to reduce the share of the short-term debt. The debt maturity structure is far from being ideal, so, according to debt repayment projections for the period 2011-20, the burden of repayment is heavier in the first half and at the end of the period. For efficient public debt management it is important that the burden of repayment is spread equally over a future period, and special attention should be paid to debt maturity smoothing, as envisaged in the new Strategy.

The most commonly used public debt management instruments were bonds (their share in total debt fell from 70% to about 60% in the 2000-10 period) and credits (their share rose from 25% to about 26% of total debt in the same period). T-bills gained in importance with the introduction of OMO in 2005, and stood at about 13% of total debt in 2010. The last ten years also saw an increase in domestic debt, its share in total debt going up from 36% in 2000 to 67.6% in 2010. This was due to an increasing orientation to the domestic market, caused by the rapid external debt growth over that period. However, excessive government borrowing on the domestic market deeply affects the financial system liquidity, crowding out other sectors, and therefore its further growth should be prevented.

FIGURE 5

Structure of public debt by instruments, 2000-10 (in billion kuna)



[1] *Including Croatian Motorways.*
[2] *Excluding Croatian Motorways.*

Source: CNB.

As shown by figure 5, for the purpose of coordination with the monetary policy, a large portion of government borrowing on the international markets was substituted by domestic borrowing in the period 2005-08, as the excessive external debt

growth compromised the credibility of the country and produced strong appreciation pressures on the kuna exchange rate. Therefore, the CNB urged the government to cut its portion of external debt, which the government did, so that the total public debt movements remained very stable over that period. However, since the end of 2008, the government has increased both public debt components, and coordination with the monetary policy has deteriorated ever since.

Croatia still lacks some of the instruments extensively used in EU member states, which have been recommended in the literature as the most acceptable for good coordination between the monetary and public debt management policies. In situations that call for a more restrictive anti-inflationary monetary policy of the central bank, the government should issue inflation-linked bonds, which would improve the credibility of both monetary and fiscal policies and encourage investments in such instruments. This would ease the pressure on the central bank to tolerate higher inflation in order to reduce the real value of public debt[12]. The indexed debt market has been on the increase in the EU, because it allows the issuers to prove their credibility, and enables investors who invest in such debt to diversify their portfolio and protect themselves from inflation. However, the share of indexed debt in total debt should not be too large, because this would have disastrous consequences in the case of unexpected economic shocks. Croatia still does not apply inflation-indexed bonds, although they would ensure much lower interest rates, which would not involve inflationary expectations.

It remains to be hoped that the difficulties in public debt management will soon be resolved, and that the debt management policy will then be much more efficient and better coordinated with the monetary policy.

4.2 THE MINISTRY OF FINANCE' CONTRIBUTION TO COORDINATION

The Ministry of Finance improved coordination by reducing the government's external borrowing in the period 2005-2008. The CNB constantly called for slowing down the huge external debt growth, as it has reached a level threatening the country's credibility, increasing the appreciation pressures on the kuna and hampering the monetary policy implementation. In response to these calls, the government reduced its share in external debt from about 30% at end-2004 to about 11% at end-2008. It became increasingly oriented to the domestic market, but as the crisis broke out and the domestic market conditions deteriorated, and as there was a risk of crowding out other sectors, the government returned to borrowing abroad in 2009.

By adopting a Strategy for the Development and Modernization of the State Treasury, 2007-2011, the Ministry of Finance intended to rationalise the state budget liquidity management and make significant savings in public debt management.

[12] Margaret Thatcher referred to inflation-indexed bonds as "sleeping policeman".

This would enable the CNB to manage the financial system liquidity in a more efficient way. Regrettably, no major savings were realised.

The largest contribution by the Ministry of Finance to better coordination between the monetary and public debt management policies would be the achieving of the following goals set in the new Public Debt Management Strategy, 2011-2013:

– **Stabilising the public debt-to-GDP ratio**, which would increase the credibility of the overall national economic policy, encourage investments, and enable the CNB to release additional liquidity to finance business projects without boosting inflation.
– **Extending the average maturity and reducing the short-term debt-to-total debt ratio,** which would mitigate the risk of debt renewal and of severe liquidity disruptions in the system. In order to reduce the share of short-term debt and extend the average maturity, government borrowing over the next medium-term will be focused on instruments with longer maturities, primarily bonds with maturities of 5 to 10 years. The maturities of new debts will be adjusted in order to smooth the maturity dynamics of liabilities and equitably distribute the burden of refinancing.
– **Introducing currency risk hedging mechanisms.** Renewed growth in government borrowing enhances the currency risk, which can be only partially mitigated by systematic promotion and development of a domestic currency yield curve, and largely eliminated only by joining the EU. The Public Debt Management Strategy envisages reducing the currency risk over the next three years, by introducing risk hedging instruments ("currency swap") and by substituting the majority of the USD-denominated debt by debt in euro.
– **Continually promoting and developing the domestic securities market.** The development of this market would accelerate the achievement of the public debt management and monetary policy goals, by increasing the transparency and predictability of the public debt management policy, and, consequently, facilitating the implementation of the monetary policy as well. Therefore, the securities market development is a joint objective of both public debt management and monetary policies and one of the main prerequisites for their effective coordination. In Croatia, the CNB currently uses T-bills, and will perhaps use the Ministry of Finance's bonds in future, as collateral in OMO and Lombard loan transactions, and is therefore interested in a further development and deepening of the government securities market.

Another move forward in public debt management is also the release of a T-bill auction calendar in 2011, which will contribute to the transparency and predictability of the policy, as an important prerequisite for good coordination with the monetary policy.

5 AN ASSESSMENT OF COORDINATION SO FAR

The institutions responsible for public debt management, monetary and fiscal policies should take account of the joint objectives of their respective policies. Pru-

dent policy implementation by each of them brings benefits to the entire economy, because it enables reducing risk premiums in the long-term interest rate structure. However, there is also a possibility of conflicts between these policies, particularly between the public debt management and the monetary policy. Specifically, as the monetary policy is aimed at maintaining price stability and the public debt management policy at providing the necessary funding to the government at minimal costs, there is a strong possibility of a conflict between the two policies.

What are the most frequent causes of conflicts and can they be avoided through more effective coordination?

- **The interest rate level.** In a situation of huge monetary aggregate growth, central banks, in order to prevent inflation, often apply restrictive measures to influence the interest rate growth. This may be contrary to the fiscal authorities' intentions to borrow on the domestic market at as favourable terms as possible.
- **Growth in public borrowing on the financial market.** Central banks often warn the government about the monetary effects produced by its borrowing. The sale of large amounts of government securities can severely distort the banking system liquidity and thus impair the efficiency of the monetary policy. Therefore, it is crucial that the central bank receives timely information about the borrowing plans and that it takes prompt action towards maintaining price stability.

The resolution of conflicts should be based on the experiences of developed countries paying close attention to coordination between the monetary and public debt management policies. In Great Britain, the central bank provides counselling to the Treasury and conducts market transactions with government securities on its behalf. In Ireland, there is a top-level working group, meeting regularly in order to improve coordination between the monetary and public debt management policies. Sweden's Debt Management Office is legally bound to negotiate about the monetary policy with the central bank; it consists of two coordination committees: one for domestic and the other for external debt (Crona, 1997). Despite the highly developed financial markets in these countries, and the fact that coordination is mainly achieved through the implementation of market instruments, there is still need for coordination between these important policies.

If all the prerequisites for effective coordination were met, the harmonisation of these policies could be easily achieved. In such case, the financial market would function as a well-organised mechanism, sending timely and clear signals to decision-makers and facilitating coordination between their policies, thus making formal coordination far less important. However, as such ideal conditions can hardly be achieved, appropriate arrangements must be made for coordinating the public debt management and monetary policies. In Croatia, for example, where the prerequisites for good coordination are not fully met, there is still a need for formal

regulations on coordination, which are laid down in the Act on the CNB (Zakon o Hrvatskoj narodnoj banci, NN 75/08)[13]. In this country, not enough attention is given to coordination between the public debt management and monetary policies. Coordination between the objectives, instruments and institutional and operational arrangements of the monetary, fiscal and public debt management policies is crucial not only for avoiding possible conflicts of jurisdiction, but also because a joint action, exchange of information and technical cooperation can accelerate the market development process, widen the room for manoeuvre for both fiscal and monetary policies, encourage saving and, as result of all this, preserve the country's macroeconomic stability (Babić et al., 2001).

Over the last ten years, coordination between the monetary and debt management policies went through different stages of "ups and downs":

- In the period 2004-08, the CNB and the Ministry of Finance successfully coordinated the government's external debt servicing.
- Although the Act on the CNB prohibits direct government borrowing from the CNB, it opened up a possibility to conduct OMO. Accordingly, the launching of OMO in 2005, created additional opportunities for government borrowing on the domestic market and improved coordination in the money market.
- From 2005 to the outbreak of the crisis, accompanied by increasing fiscal imbalances, the Ministry of Finance continuously reduced the government's share in external debt.
- A sound Debt Management Strategy for the period 2011-13 was adopted.
- Despite the existence of a CNB-Ministry of Finance Cooperation Commission and the regulations of the Act on the CNB, obliging the Ministry to regularly inform the CNB of all government budget transactions and operations related to public debt, the cooperation between the two authorities is still inadequate. The Ministry of Finance should regularly report to the CNB on all current and future government needs and on the problems related to debt sustainability.
- The issuance of kuna bonds, which always affects the financial system liquidity, is inadequately coordinated.
- A lack of operational coherence between the monetary and fiscal policies has been a serious problem both before and after the outbreak of the crisis.
- The Economic Recovery Programme from April 2010, seemed to be an important move forward, as it announced structural reforms and fiscal adjustments, which, once implemented, would enable the CNB to continue reducing the reserve requirement rate and thus provide additional liquidity to fuel economic growth. However, as the Programme objectives have not been realised, the reserve requirement rate remains unchanged.

In short, despite some progress made in the period 2004-08, coordination between the monetary and public debt management policies was inadequate during the last ten years, and especially during the last two recession years. Given differences in

[13] Article 38 of the Act on the CNB.

the primary objectives and functions between the Ministry of Finance and the CNB, it is sometimes impossible to avoid conflicts, although many of them could be avoided through better coordination.

5.1 BARRIERS TO EFFECTIVE COORDINATION

The major barriers to effective coordination are the following:

- The absence of mechanisms for closer coordination in the periods of financial crisis, which have been used in some countries to accelerate the exit from the crisis.
- Still inadequate transparency of the fiscal policy. Despite the Public Debt Management Strategy for the period 2011-13, the Ministry of Finance does not submit information on government revenue and expenditure and plans of borrowing to the CNB in a timely manner, which has a serious impact on the financial system liquidity forecasting.
- The strong upward trend in public debt, with no indication of any austerity measures in the public sector, aimed at reversing this trend, which narrows the monetary policy's room for manoeuvre.
- The underdeveloped financial market, especially the government securities market. In order to stimulate the market growth, the CNB and the Ministry of Finance should jointly provide incentives to introducing primary dealers in government securities, which proved to be a very good solution in many countries.
- Failure to accomplish the goals set out in the Economic Recovery Programme. The accomplishment of these goals, especially the one relating to fiscal consolidation, would significantly improve coordination between the monetary and public debt management policies.

Although the above mentioned barriers cannot be fully removed in the short run, there is still a possibility to jointly define long-term goals and tasks, as well as an optimal fiscal and monetary policy mix that would become even more important in the light of Croatia's upcoming accession to the EU, and the new environment it will have to cope with.

6 CONCLUSION AND RECOMMENDATIONS

Despite some progress made in coordinating the monetary and public debt management policies, this coordination has been inadequate, which has, to some extent, destabilised the current macroeconomic situation in Croatia. These two crucial policies had been fully separated before the basic prerequisites for such separation were met. Specifically, even though the separation of the monetary policy from the public debt management policy is a desirable process it has to be accompanied by creating conditions for effective coordination, i.e. transparent public debt management and a well-developed government securities market. Unlike these two conditions, the "central bank independence" condition has already been met.

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In the period 2004-08, some improvements were made in coordination, particularly by introducing open market operations and reducing the government's share in total external debt. During the recession years 2009-10, coordination was rather poor, although it was in that period that it should have been at its highest level. Formal regulations on coordination exist, but are not fully implemented. The Ministry of Finance and the CNB should therefore intensify their efforts in this respect.

Despite the narrowing room for manoeuvre, the CNB has continuously contributed to improved coordination. However, due to the poor functioning of the credit and interest rate channels of monetary transmission, the CNB has been unable to adequately influence the banks' credit activity or rates of interest on bank credits and deposits, but it has influenced the money market interest rates. Hence, these issues also require coordination with other economic policy agents, including the public debt management policy. Perhaps some CNB measures should have been introduced earlier (e.g. reducing the reserve requirement rate), which might have slowed the economic downturn and softened the negative effect of that downturn on the fiscal and public debt management policies, but this is hard to estimate. Despite some contribution to coordination improvement made by the Ministry of Finance, especially through the introduction of the new Debt Management Strategy for 2011-2013, the Ministry and the Government have failed to implement the planned structural changes and fiscal adjustments, and to promptly inform the CNB of their respective activities relevant for the operational coherence between the fiscal and monetary policies. Therefore, a regular exchange of information between the Ministry of Finance and the CNB, with a view to coordinating fiscal and monetary policies should be established as soon as possible.

Both the CNB and the Ministry of Finance should promote the government securities market development. The CNB has already taken some steps down this route by launching OMO, and the Ministry of Finance has given this objective a prominent place in its Public Debt Management Strategy (2011-2013). Introducing OMO in April 2005 was a significant move towards developing the short-term government securities market, as the demand for government securities increased and interest rates were lower and less volatile in the period 2005-08. Even the accomplishment of the goals set in the Public Debt Management Strategy would be a major step forward in improving coordination.

The Ministry of Finance and the CNB are faced with many tasks and challenges. Dealing with them in a proper way may, in a few years time, result in considerable improvements in the monetary and public debt management policy coordination in Croatia.

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